

461025 -- Patent Information

Patent No
(Issued) 461025

Title **Method for rounding corner of shallow trench isolation while
formation of parasite transistors and short circuit between
neighboring transistors can be prevented**

Patent type B

Publication
Date 2001/10/21

Application
No 089111252

Filing Date 2000/6/9

IPC H01L21/76

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Abstract The present invention provides a method for rounding a corner of a shallow trench isolation, which comprises: using a patterned mask layer and a pad oxide layer as an etching mask; etching a silicon substrate to form a trench in a silicon substrate; peeling off a portion of the pad oxide layer; oxidizing the surface of the silicon substrate in the trench to form silicon dioxide; peeling off a portion of the pad oxide layer and the silicon dioxide on the surface of the silicon substrate in the trench; repeating the step of oxidizing the surface of the silicon substrate and the step of peeling off a portion of the pad oxide layer and the silicon dioxide to round the corner of the trench; and performing the subsequent steps to form a shallow trench isolation.